



Spacecraft Radio Systems Development



• Overall Objective

- Achieve significant reduction in spacecraft radio hardware cost, mass and volume, and DC power while providing greater flexibility, increased performance and assured compatibility with the DSN.

–Goals and Products

– X/Ka Spacecraft Transponding Modem (STM)

- reduced cost, mass, and power consumption
- increased functionality

– Ka-Band Power Amplifiers

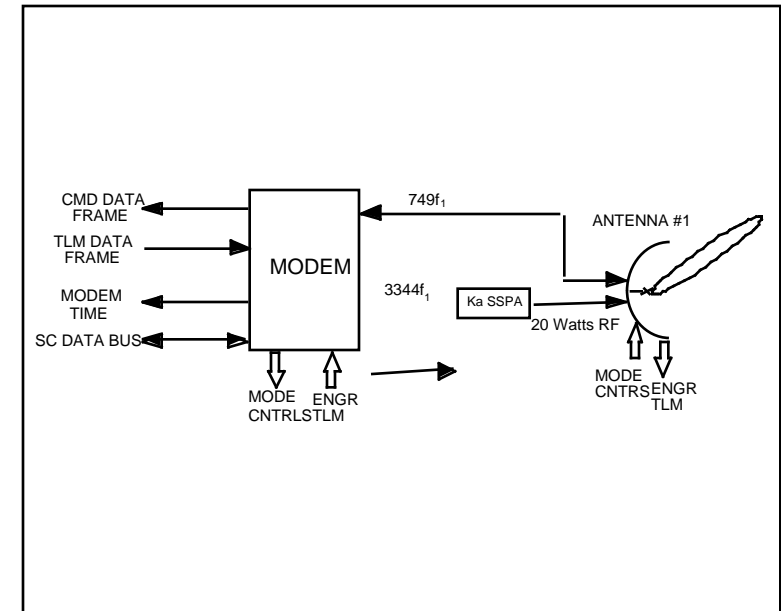
- 20 W TWTA
- 20 W Active Surface Amplifier
- 20 W Phased Array
- (potential) 5 W SSPA

– Ka-Band inflatable antenna, integrated with transmitter array

- 3 meter inflatable reflectarray with fine pointing capability
- 1 meter inflatable lens antenna

– Ka-Band high efficiency antenna

- (potential) 1.5 meter Displaced Axis antenna



Digital X / Ka-Band Radio System

